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BEFORE THE

Federal Communications Commission

WASHINGTON, D.C.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Advanced Television Systems	)	MM Docket No. 87-268
and Their Impact upon the	)	
Broadcast Service	)	FCC 97-115; 97-116
	)	

To: The Commission

REPLY TO OPPOSITION TO
SUPPLEMENT TO PETITION FOR RECONSIDERATION

Univision Communications Inc. ("Univision"), by its attorneys, hereby replies to the "Opposition to Supplement to Petition for Reconsideration" filed by Brooks Broadcasting, LLC ("Brooks") in the above-referenced proceeding. The late-filed opposition of Brooks, licensee of KASW, Phoenix, Arizona, states only that Brooks is unhappy with the minuscule increase in interference that Univision's DTV allocation proposal would cause to KASW. Brooks does not, however, include any engineering to demonstrate that the interference will be more severe than stated, or that the stated level is excessive. Nevertheless, to ensure that the preservation of the Spanish-language programming service provided to Tucson by Univision's K52AO does not create unnecessary interference, Univision has conducted additional engineering studies and proposes herein several alternative channels for the Commission to choose from to enhance the digital television ("DTV") allotments in the Tucson, Arizona area.

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I. Background

Presently, Univision's low power television ("LPTV") station K52AO operates as the most popular Spanish-language television station in Tucson, Arizona, which is home to over a quarter of a million Hispanics.[1/] See SMI's MarketQuest, 1996; Tucson Nielson NSI Metro Ratings, July 1997. If left unchanged, the Commission's allotment of DTV channel 52 to full power station KAJW, Tolleson, Arizona will displace K52AO and threatens to deprive Tucson of Univision's top-rated programming. To avoid this, Univision informed the Commission in its August 22, 1997 Supplement that allotting DTV channel 53 to KAJW would: 1) protect K52AO from displacement; 2) improve KAJW's DTV allotment by greatly reducing the level of interference between its NTSC and DTV channels; and 3) eliminate the need for co-location of KAJW's NTSC and DTV facilities. The only potential adverse impact of the proposal is that Brooks' KASW might receive de minimis interference over about fifteen square kilometers of its coverage area.

This minimal interference is the basis for Brooks' late-filed opposition, with Brooks stating that it "takes any potential for interference to its signal seriously." Brooks Opposition at 2. In its Opposition, Brooks recommends that K52AO move to any of channels 63 through 66 or, alternatively, that KAJW be allocated DTV channel 55 rather than DTV channel 53. Id. at 3. However, Brooks supplied no engineering data to indicate that unacceptable levels of interference would be created by Univision's proposal, or that any of Brooks' proposed alternatives are technically viable.

1/ Between 1990 and 1996, Tucson's large Hispanic population grew by 25% and, between 1996 and 2000, Tucson's Hispanic population growth is expected to more than double non-Hispanic growth. See SMI's MarketQuest, 1996.

II. Discussion

Based on Univision's latest engineering study, attached hereto as Exhibit 1, at least four alternative DTV channels could be allocated to KAJW which would, at a minimum:

- Provide over 100 percent replication of KAJW's authorized NTSC coverage area and population.
- Significantly decrease predicted interference to KAJW's NTSC service.
- Protect K52AO and its Spanish-language program service from displacement.
- Cause no new interference to any NTSC or DTV assignment.[2/]

Exhibit 1 at 3-4. Specifically, the four DTV channels are 38, 53, 55 and 56. Channels 38 and 56 would eliminate all 710 square kilometers of predicted interference to KAJW that the Commission's current DTV channel 52 allotment would create. Id. Channels 53 or 55 would reduce this predicted interference to 41 or 100 square kilometers respectively. Id. Allocating DTV Channel 38 to KAJW would also provide the additional benefit of minimizing the use of DTV channels outside of the core spectrum and thereby avoid the need for KAJW to make a "double move" at the end of the DTV transition.

Brooks' Opposition suggests that DTV channel 55 might be a viable alternative and, as shown in Univision's engineering study, this DTV channel would certainly be an improvement over DTV channel 52 for all concerned. See Exhibit 1 at 3. However, the net improvement from using DTV channels 38, 53 or 56 would be even greater. Any of these four DTV channels would provide numerous benefits over the present allotment of DTV channel 52 to KAJW, and Univision urges the Commission to take advantage of this "win-win" proposal.

2/ While, as discussed in Univision's Supplement, KAJW's use of DTV channel 53 would cause very slight interference to KASW, the level of interference is far below the amount already predicted for most NTSC stations in the Commission's Table of Allotments. See Exhibit 1 at 1-2. In exchange for giving KASW 15 square kilometers of predicted interference to its NTSC coverage, the Commission can eliminate 669-710 square kilometers of predicted interference to KAJW's NTSC coverage.

Thus, Univision's revised request for a change to the Table of Allotments is as follows:

Tucson, Arizona

	NTSC Channel	Sixth Report DTV Channel	Proposed DTV Channel
KAJW, Tolleson, Arizona	51	52	38, 53, 55 or 56

Conclusion

For the foregoing reasons, Univision hereby urges the Commission to make the change to the Table of Allotments requested herein.

Respectfully submitted,

UNIVISION COMMUNICATIONS INC.

By: Scott R. Flick

Clifford M. Harrington
Scott R. Flick
C. Brooke Temple III

Its Attorneys

FISHER WAYLAND COOPER LEADER
& ZARAGOZA L.L.P.
2001 Pennsylvania Avenue, N.W., Suite 400
Washington, D.C. 20006
(202) 659-3494

Dated: October 3, 1997

EXHIBIT 1

ENGINEERING STATEMENT
prepared for
Univision Communications Inc.
K52AO Tucson, Arizona

This engineering statement has been prepared on behalf of *Univision Communications Inc. ("UCI")*, in support of a *Reply to Opposition to Supplement to Petition for Reconsideration* of the Federal Communications Commission's Sixth Report and Order ("6th R&O") in MM Docket 87-268.[1] *UCI* operates "low power" television ("LPTV") station K52AO, Tucson, Arizona. *UCI's* petition requested a change in one digital television ("DTV") channel allotment in the 6th R&O such that the operation of K52AO is not displaced. Namely, *UCI's* petition requested that the DTV allotment for KAJW, Tolleson, Arizona be changed from channel 52 to 53. *Brooks Broadcasting, LLC ("Brooks")* has filed an opposition to *UCI's* petition.

Discussion

In its opposition, *Brooks* objects to the minimal interference that may be caused to *Brooks'* KASW (TV), analog channel 61, Phoenix, Arizona by the use of DTV channel 53 at Tolleson.

As discussed in the original *UCI* petition, an engineering review of the proposed DTV channel 53 allotment at Tolleson was performed to determine the impact on nearby analog (NTSC) and DTV assignments. Interference studies were performed using an application of the terrain-dependent Longley-Rice methodology, similar to that employed by the Commission in developing the DTV table of allotments.[2] The interference studies showed that the total KASW coverage area predicted to

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[1] See FCC 97-115 *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, released April 21, 1997.

[2] The time-shared "HDTV" computer program offered by the National Telecommunications and Information Administration's TA Services in Boulder, Colorado was employed as the method for coverage and interference prediction. The HDTV program is based upon the Longley-Rice propagation model, which uses the methods described in the National Bureau of Standards Technical Note 101, and has been developed in close coordination with the Commission's OET staff. All area and population predictions were based on the Longley-Rice methodology as employed by TA Services and included "clipping" the extent of coverage at the Grade B and DTV contour boundary

receive new interference from the use of DTV channel 53 at Tolleson consists of 15.4 square kilometers. This area represents only 0.1 and 0.2 percent of the area and population currently served by KASW, respectively.

These amounts are below or comparable to new interference percentages shown in the Commission's table for many other NTSC stations. Specifically, when compared to all other DTV allotments as listed in the Commission's table, other NTSC stations having the same or more area and population affected by new interference represent 50.4 and 36.9 percent of all NTSC stations, respectively. The average NTSC station in the Commission's table will receive new interference to 1.32 and 0.88 percent of the area and population served, respectively. Thus, the minimal amount of new interference predicted to KASW is below or comparable to levels predicted for many other NTSC stations (and well below the average levels) as a result of the operation of DTV stations.[3]

The authorized transmitter site for KAJW is 0.17 km from the KASW site. In its opposition, *Brooks* avers that allotments eight channels removed from each other are proscribed in Section 73.698 and 73.623 of the Commission's rules. In fact, however, §73.623(d) requires a separation distance of less than 24.1 (or over 96.6) kilometers between UHF taboo channel DTV to analog channel assignments (Zones II and III), such as the case at hand (i.e.: DTV channel 53 and NTSC channel 61). This spacing requirement would be violated if the respective transmitters were located between 24.1 and 96.9 kilometers. Hence, a DTV facility on channel 53 at KAJW (0.17 km from KASW) *does* meet this distance separation requirement. Further, a channel study conducted under the distance separation requirements of §73.623(d) with respect to all other known licensed and authorized stations and DTV allotments showed that a new (future) DTV station on channel 53 could

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(modified with the "dipole" correction factor), as determined with the Commission's traditional average elevation method, per the 6th R&O's Appendix B. It is believed that the computer program is compliant with the interference evaluation guidelines specified in OET Bulletin 69.

[3]These comparisons exclude stations in Puerto Rico and the Virgin Islands.

be allotted at KAJW's authorized transmitter site without any regard to interference caused to KASW or any other station.

As stated in the petition, further studies may reveal additional channels for the Tolleson, Arizona DTV allotment that do not displace K52AO. For completeness, given the opposition filed by *Brooks*, further studies were performed in the preparation of the instant reply. An engineering analysis per OET Bulletin 69 showed that at least three other channels could be used as a DTV assignment for KAJW at Tolleson. The additional channels identified are DTV channels 38, 55, and 56.[4] No additional predicted interference would be caused to any other DTV or NTSC assignment as a result of KAJW's use of any of these channels in lieu of DTV channel 52, as assigned. Any of these channels would replicate over 100 percent of KAJW's authorized NTSC coverage area and population. DTV channel 38 is within the "core" of television channels (i.e.: channels 2-46 and 7-51) and, if used by KAJW, would thus eliminate any need for KAJW to later switch its DTV operation to another channel, as will be the case with the allotted DTV channel 52.

As stated in *UCI's* petition, the allotted DTV channel 52 for KAJW is first-upper adjacent to the KAJW channel 51 NTSC facility. Many experts believe that such assignments are to be avoided whenever possible, primarily due to interference the DTV station may cause to NTSC reception. For the instant situation, the interference analysis showed that 710 square kilometers of KAJW's NTSC coverage area would be subject to interference from the KAJW DTV channel 52 facility, as assigned in the Commission's table. Use of DTV channels 38 or 56 for KAJW would completely eliminate the 710 square kilometers of predicted interference to KAJW's NTSC coverage, while use of channels 53 or 55 would reduce the predicted interference area to KAJW to 41 or 100 square kilometers, respectively. Thus, use of any of the substitute channels mentioned herein for KAJW's DTV allotment would decrease significantly the predicted interference area to KAJW's NTSC facility.

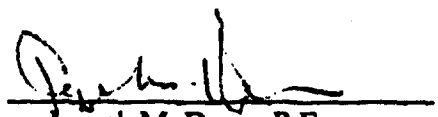
[4]Further study may identify even more DTV channels that may be used in addition to those shown herein.

Summary

Based on these studies, it appears that at least four alternate DTV channels could be used at KAJW, Tolleson Arizona that would provide over 100 percent replication to KAJW's authorized NTSC facility. DTV channel 38, within the "core" spectrum, would provide over 100 percent area and population matching and is not predicted to cause new interference to any NTSC or DTV assignment. Alternately, DTV channels 53, 55, or 56 could also be allotted to KAJW and also provide over 100 percent area and population replication. Of these three latter channels, only channel 53 is predicted to cause additional interference to any other assignment.[5] Use of an alternate DTV channel at Tolleson would relieve the KAJW NTSC channel 51 facility from potential problems resulting from the co-location of a first-upper adjacent DTV channel and the LPTV operation of K52AO would not be displaced.

Certification

The undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief. Mr. Davis is a principal in the firm of *Cavell, Mertz & Perryman, Inc.*, is a Registered Professional Engineer in Virginia, holds a Bachelor of Science degree from Old Dominion University in Electrical Engineering Technology, and has submitted numerous engineering exhibits to various local governmental authorities and the Federal Communications Commission. His qualifications are a matter of record with that agency.



Joseph M. Davis, P.E.
October 3, 1997

Cavell, Mertz & Perryman, Inc.
10300 Eaton Place
Suite 200
Fairfax, VA 22030
(703) 591-0110

[5]The amount of interference predicted for KASW is minimal in nature and represents new interference levels far below the average of that predicted in the Commission's table for most other NTSC stations.

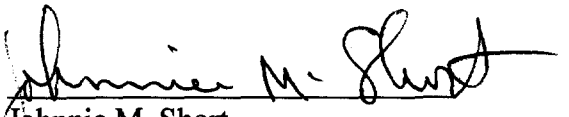
CERTIFICATE OF SERVICE

I, Johnnie M. Short, a secretary to the law firm of Fisher Wayland Cooper Leader & Zaragoza L.L.P., hereby certify that a true copy of the foregoing "**REPLY TO OPPOSITION TO SUPPLEMENT TO PETITION FOR RECONSIDERATION**" was sent this 3rd day of October, 1997, by first class United States Mail, postage prepaid, to the following:

Paul H. Brown
WOOD & BRINTON, CHARTERED
Suite 900A
2300 M Street, N.W.
Washington, D.C. 20037

John R. Feore, Jr.
DOW, LOHNES & ALBERTSON, P.L.L.C.
1200 New Hampshire Avenue, N.W.
Suite 800
Washington, D.C. 20036-6802

John C. Quale
SKADDEN, ARPS, SLATE,
MEAGHER & FLOM, LLP
1440 New York Avenue, N.W.
Washington, D.C. 20005



Johnnie M. Short